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INVESTMENT THESIS FOR CHIPOTLE MEXICAN GRILL, INC. (NYSE: CMG)

Alexander Mabie

Johns Hopkins Institute for Applied Economics,
Global Health, and the Study of Business Enterprise

Investment Thesis for Chipotle Mexican Grill, Inc. (NYSE:CMG)

By Alexander Mabie

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About the Series

The Studies in Applied Finance series is under the general direction of Professor Steve H. Hanke, Co-Director of the Johns Hopkins Institute for Applied Economics, Global Health, and Study of Business Enterprise (hanke@jhu.edu) and Dr. Hesam Motlagh (hnekoor1@jhu.edu), a Fellow at the Johns Hopkins Institute for Applied Economics, Global Health, and Study of Business Enterprise.

This working paper is one in a series on applied financial economics, which focuses on company valuations. The authors are mainly students at the Johns Hopkins University in Baltimore who have conducted their work at the Institute as undergraduate researchers.

About the Author

Alexander Mabie is an incoming long-only equity analyst at Goldman Sachs Asset Management in New York. He conducted the research for this paper while serving as Prof. Hanke's research assistant at the Institute for Applied Economics, Global Health, and Student of Business Enterprise during the fall of 2016. Alex will graduate in May of 2018 with a B.A. in Economics and a minor in Financial Economics and Entrepreneurship & Management.

Summary

This working paper is an in-depth analysis of Chipotle Mexican Grill Inc. The analysis examines the economic factors that impact Chipotle's underlying business fundamentals. This analysis is then combined with a proprietary Discounted Cash Flow (P-DCF) model to determine Chipotle's financial position. The model will be presented along-side Monte-Carlo simulations to reveal the distribution of probable free cash flows and the potential for future earnings. In addition to these quantitative factors, we I assess the alignment of Chipotle's executives with shareholders based on the company's proxy report. At the conclusion of this analysis, I aim to clearly convey Chipotle's business strategy and the company's financial standing to arrive at a sound investment decision.

Acknowledgements

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Investment Thesis for Chipotle Mexican Grill, Inc. (NYSE:CMG) by Alexander Mabie

Rating: Sell – Average Free Cash Flow per Share: $264.80

Company Profile *($ in MMs except per share data)*		
Company Name	Chipotle Mexican Grill	
Date	12/19/16	
Fiscal year ends (current period)	12/31/2016 (3Q)	
Current Price	$	392.07
52 week high (date)	$	544.88
52 week low (date)	$	352.96
Market Cap	$	11,350.10
Enterprise Value	$	10,990.95
Total Debt	$	-
Cash	$	359.15
Net Debt/Enterprise Value	-3.27%	
Dividend	N/A	
Shares Outstanding/Float	28.9M/28.5M	
Current P/E	130.80	
2018 P/E (EPS)	30.87 (12.69)	
2017 P/E (EPS)	42.90 (9.13)	
2016 P/E (EPS)	256.93 (1.53)	
2015 EPS	$	14.75
2014 EPS	$	14.08
2013 EPS	$	10.44
*Consensus Estimates as of 12/19/16		

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Executive Summary

Chipotle Mexican Grill, Inc. (NYSE:CMG) operates fast-casual Mexican food restaurants. By analyzing historical averages, forward guidance from management, and the macro environment, our Proprietary Discounted Cash Flow (P-DCF) model estimates that Chipotle's probable free cash flow per share is $264.80; i.e. a significant discount compared to the current market price of $392.07. This result was obtained using bullish near-term revenue growth estimates in the face of Chipotle's public relations fiasco pertaining to food safety. Given my sell recommendation, applying optimistic assumptions in the P-DCF will result in a more conservative model output. I took a relatively bullish stance with regard to future revenue growth rates to illustrate the degree to which the market the company must grow in order to justify today's valuation.

Reiterating this theme of bullishness, I hold the absolute margins on the majority of Chipotle's expense line items constant over the ten-year model forecast period. I use this approach despite minimal signs of historical operating leverage and the high likelihood of lofty requirements for marketing expenses and other promotional activities to improve public relations. In particular, food, beverage and packaging expenses are given a negative 10 basis point annual step even though Chipotle is rolling out new menu items that could potentially increase the firm's food costs. In light of a very expensive valuation, weak management with decent compensation policies, secular trends affecting the company's popularity, and recent incidents tarnishing the Chiptole brand, I assign a **sell** rating.

Company Background and Recent Developments

Chipotle is a fast-casual Mexican food restaurant operator, with a focus on burritos, tacos, burrito bowls, and salads. The company was founded in 1993 and is based in Denver, Colorado. As of September 30, 2016 the company operated 2,129 Chipotle restaurants in the United States, none of which the company franchises. The company also oversees 15 restaurants in Canada, six in England, five in France, and one in Germany. Furthermore, Chipotle operated 15 ShopHouse Southeast Asia Kitchen ("ShopHouse") restaurants, which serve fast-casual Asian cuisine (the company has since shut down this business after the concept did not catch on). Chipotle has also invested in a consolidated entity that owns and operates seven Pizzeria Locale locations, a fast casual pizza restaurant. Chipotle manages its operations based on nine regions and aggregates them to one reportable segment[1].

Chipotle's popularity exploded between the start of 2012 through 2015 as health and wallet-conscious consumers nationwide embraced the company's commitment to "food with integrity." Chipotle's mission has been to use high quality ingredients grown with respect for the environment, animals, and the people who grow or raise this food. Initially, this business method effectively distinguished them from competitors that have applied a more formulaic and less nutritious approach to fast food (read: McDonald's)[2].

However, significant food safety incidents in 2015 impacted hundreds of customers around the country and had direct effects on Chipotle's performance and brand. From July to December, various outbreaks of *E. coli*, norovirus, and *Salmonella* occurred in Washington,

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[1] https://www.sec.gov/Archives/edgar/data/1058090/000105809016000058/cmg-20151231x10k.htm#Item_1

[2] https://www.sec.gov/Archives/edgar/data/1058090/000105809016000058/cmg-20151231x10k.htm

Oregon, California, Minnesota, Oklahoma, Kansas, and Massachusetts[3]. In response, Chipotle closed all of its restaurants on February 8, 2016 for an all-staff meeting on food safety. Company founder and co-CEO Steve Ells affirmed the company's commitment to food safety. The consumer and market reactions to the various incidents, however, were not mild. Shares of Chipotle stock, which peaked in August 2015 at $758, now hover around $400. Comparable restaurant sales declined 24.9% in the nine months ended September 30, 2016[4]. This dramatic decline reflects increasingly negative perceptions of the Chipotle brand and the safety and quality of its food.

In an effort to increase sales and customer loyalty, management spearheaded several promotional activities, such as Chiptopia Summer Rewards, which offered rewards that incentivized customers to visit restaurants more frequently[5]. Third quarter results for FY 2016 illustrate that despite Chiptopia, the company could not lure back customers[6]. Chipotle has engaged in three consecutive quarters of discounting and is now becoming more aggressive with advertising, digital ordering, and new additions to its long-outdated menu. It is currently testing TV ads, a method of marketing the company had previously avoided[7]. Additionally, management recently introduced chorizo to the restaurant's menu, an item that now accounts for roughly 7% of entire sales. The team plans to continue adding items. Lastly, Chipotle is fleshing out a mobile-friendly website that customers can use, as well as in-store tablet ordering. It remains to be seen whether these initiatives will have a material impact on top-line and bottom-line performance.

In addition to revamping the stores, per se, to increase profit, activist hedge fund investor William Ackman of Pershing Square Capital Management disclosed a 9.9% stake in Chipotle stock in September. Ackman is known for taking positions in underperforming companies and advocating for change, often lobbying for a seat on the board of directors. Indeed, the Wall Street Journal reported earlier in November that Ackman and Chipotle were nearing a settlement that could give Ackman's firm a voice in the boardroom, although there were not any specific details about how many seats he might win[8].

Shareholders who are long CMG stock may interpret Ackman's stake in either a positive or negative light. However, I choose the latter for three reasons. First, Ackman has already begun to put pressure on the company to broaden its share repurchase program and to take on debt for the first time, a questionable decision.[9]. Chipotle's management has already misallocated capital in spending free cash flow on buying back its overpriced stock. There is little merit to borrowing to fund the repurchase of overvalued Chipotle shares. The company cannot afford interest expense at this juncture and risks destroying long-term shareholder value if our valuation is indeed correct.

Next, Chipotle has long been criticized for its clubby board. The company operates a co-CEO structure and also combines the roles of chairman and CEO. Essentially, all nine board members have ties (either through previous business ventures or personal matters) to co-CEO and chairman Steve Ells. New board members with experience in marketing, crisis

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[3] https://web.archive.org/web/20151222031147/http://www.cdc.gov/ecoli/2015/O26-11-15/index.html
[4] https://www.sec.gov/Archives/edgar/data/1058090/000105809016000088/cmg-20160930x10q.htm
[5] https://www.sec.gov/Archives/edgar/data/1058090/000105809016000081/cmg-20160630x10q.htm
[6] https://www.sec.gov/Archives/edgar/data/1058090/000105809016000088/cmg-20160930x10q.htm
[7] http://www.wsj.com/articles/chipotle-provides-optimist-outlook-though-profit-plunges-95-1477429929
[8] http://www.wsj.com/articles/chipotle-ackman-near-settlement-1479470401
[9] http://seekingalpha.com/article/4024072-chipotle-mexican-grill-best-thing-happens-us-great-company-gets-temporary-trouble

communication, and technology will likely be key for the company to meet its troubles, and it is easy to see Ackman rallying for such changes. However, at the same time, many investors on the Street say a shakeup to the entrenched board has been a long time coming and probably does not require Ackman. Furthermore, dismantling the co-CEO structure should also help (read: Whole Foods).

Third, I fundamentally disagree with Ackman's perspective on the company's strategic positioning and performance drivers. The following excerpts are taken from Pershing Square's 3Q letter to investors[10].

We have always believed that a good time to buy a great business is when it is in temporary trouble. While Chipotle's reputation has been bruised, we think that with the passage of time and improved marketing, technology and governance initiatives, the business will not only recover but become much stronger. Chipotle's sales recovery will be neither smooth nor predictable over the next few quarters; yet, we believe that all of the key drivers of Chipotle's powerful economic moat and long-term success remain intact. These drivers include:

1. *A strong and relevant brand built by visionary leadership*
2. *A differentiated product offering with a highly attractive value proposition*
3. *Substantial scale in the fast casual industry and first-mover advantage in real estate*
4. *Strong unit economics and extremely high returns on capital, driven by a well-honed model that facilitates best-in-class throughput*
5. *Enormous growth opportunities including new units and operating enhancements such as mobile ordering and catering*

… Today, we believe that Chipotle is one of the most compelling and authentic large-scale food brands in the U.S.

The number one driver that Ackman cites pertains to Chipotle's, "strong and relevant brand." In reality though, Chipotle's brand is neither strong . The company's brand reputation has become extremely blemished, probably beyond repair. As Bloomberg News asserts, the primary affliction for Chipotle is that the freshness of its food, which was centric to the success of the brand, has become the company's biggest weakness. Locally sourced food, free of genetically modified organisms (GMOs), hormones, and antibiotics becomes much less appealing if it causes sickness. Brand consultant, Allen Adamson, said that the food catastrophe "strikes deeper at their brand because so much of their story is based on the quality of their ingredients. This can clearly do long-term damage.[11]" A brief review of the company's operations through fiscal 2016 reveals this taking shape, and analysts at Raymond James suggest that the sharp decline in sales "could prove to be more permanent in nature.[12]". Not only have customers lost trust in the quality and safety of Chipotle's food, but they have also grown tired of the chain's stagnant and limited menu. Consumer preferences are a very important determinant of performance in the restaurant space. Ackman might see "a differentiated product offering with a highly attractive value proposition." I see the opposite. Indeed, Deutsche Bank analysts cite a

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[10] http://www.valuewalk.com/2016/12/pershing-square-capital-management-3q16-letter/?all=1
[11] https://www.bloomberg.com/news/articles/2015-12-08/chipotle-s-greatest-strength-is-now-its-greatest-weakness-too
[12] http://www.cnbc.com/2016/10/18/sell-chipotle-on-permanent-lost-sales-raymond-james-says.html

lack of innovation, overall complacency, and the resulting "menu fatigue" as a contributing to factor to lost sales[13].

Catalysts and Risks

- TV advertising proves an effective method of advertising, reflected through increased same-store sales trends.
- Menu expansion, such as the two dessert items currently in testing, garners revitalized consumer interest in Chipotle stores.
- Improvements in digital selling facilitate a more convenient customer experience and therefore increase restaurant traffic and sales.
- The presence of activist investor Bill Ackman whips corporate governance into shape.
- Ackman's involvement could, however, disrupt the company's restoration efforts and cause more distress (read: Valeant, Target).
- In absence of amendments under Ackman, the clubby board and management resist change.
- Another food safety incident occurs, further damaging Chipotle's brand reputation.
- Softer-than-expected comparable restaurant sales for 4Q16, which management expects to be in the negative single digits.
- Higher-than-expected food cost safety protocols and procedures resulting in margin compression.
- The overall restaurant space continues to struggle given weak traffic due to food deflation (cheaper groceries) and rising rent, and drags Chipotle sales down with it.
- A weakening consumer would hurt the company even if Chipotle can replenish its brand.

Historical Performance

Chipotle shareholders have experienced somewhat muted returns over the past five years, with a cumulative average growth rate (CAGR) of 3.34% and a cumulative total return of 23.25%[14]. Most equity market participants would view these returns as disappointing. Figure 1 demonstrates Chipotle's historical stock price versus the S&P 500 Index.

[13] http://www.fool.com/investing/2016/05/30/is-menu-fatigue-chipotles-newest-problem.aspx
[14] Bloomberg Terminal, Function <HP>

Figure 1: Chipotle versus S&P 500 Five Year Historical Performance
Source: Bloomberg Terminal. Command <GP>. Accessed 12/18/2016

Of the 37 analysts covering the stock, 11 assign a buy rating, 18 have a hold rating, and 8 assign a sell rating. The average target price is $410.50, implying a 3.6% upside to the current price[15].

A Long Term Asset Turnover (LTAT; i.e. revenue divided by average long-term assets per fiscal year) analysis of a company's historical financial results can yield fruitful insights. The chart in Figure 2 below plots Chipotle's LTAT and Useful Life (UL; i.e. long-term assets divided by depreciation and amortization expense) over a ten-year period (2005-2015). LTAT increased to 2.73 in FY 2014 as the company grew its top line healthily. In fourth quarter 2015 the decline in revenue that came along with the food-borne illness outbreaks was enough to slow overall revenue growth and, by extension, reduce LTAT.

Through 2010, UL fell steadily as the increase in depreciation and amortization outpaced that of long-term assets. In 2011, however, Chipotle began engaging in long-term investments. This boosted overall-long term assets and reversed the trend. UL increased each year until FY 2015, when Chipotle opened fewer new locations than in previous years, which caused long-term assets to decelerate.

[15] Bloomberg Terminal, Function <ANR>

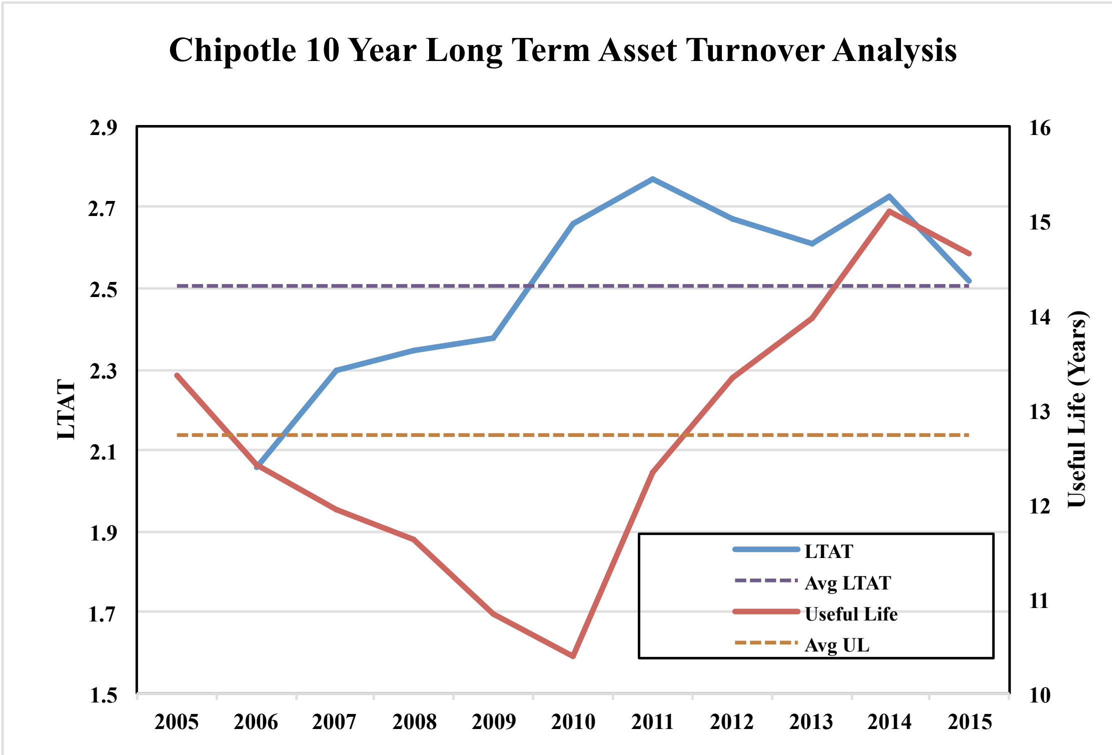

Figure 2: Chipotle 10 Year Historical LTAT versus UL
Source: Company filings. Accessed 12/15/2016

Model Assumptions

The P-DCF model for Chipotle was built as discussed in course lectures. In a typical "buy" stock pitch, conservative assumptions might mean projecting revenue at a growth rate below its historical mean and contracting margins over the forecast period. Thus, in the case of a short sale pitch, conservative model inputs are those that will put upward pressure on the obtained model output.

Balance Sheet and Income Statement Trends

The results are contained in the 'Balance Sheet' and 'Income Statement' worksheets of the accompanying Excel workbook.

On the balance sheet, the first notable line item fluctuation occurs with cash and cash equivalents. I observe that the cash balance generally declines in periods that treasury stock increases. Put simply, the company is buying back shares (it spent over $1B on repurchases from mid 2015 to mid 2016[16]). A brief glance of the balance sheet also reveals a debt-free capital structure. Upon inspection of the assets, it is clear that Chipotle exited a significant number of positions in investments and short-term investments between the end of FY15 and the third

[16] https://www.bloomberg.com/news/articles/2016-05-11/chipotle-spends-1-billion-on-stock-buybacks-as-recovery-lags

quarter of 2016. Liquidation of these stakes was likely part of an effort to free up cash given the financial pressure resulting from the food-borne illness incidents.

Chipotle's income statement highlights the deceleration and the decline in revenue that began in FY15 and persisted into the current fiscal year. The prorated estimate for FY16 of $3.83B represents a 15% contraction in revenue. Margins on expenses are relatively constant throughout the historical period of interest.

Value Drivers

The results are contained in the 'Value Drivers' worksheet of the accompanying Excel workbook.

The value drivers worksheet provides substantial insight into the past five years of Chipotle's operational health. First and foremost, fiscal years 2011 through 2014 clearly display the telltale signs of an explosive growth period. The top line grows at impressive rates, averaging 21.9% over the period. Moving to FY15, this figure drops slightly to 9.6%, reflecting the weak fourth quarter performance that followed the food-borne illness crises. The increase in revenue was almost exclusively driven by new store openings. Specifically, of the $392.9 million increase in revenue, revenue from restaurants not yet in the comparable base contributed $390.4 million, or 99.36%, of the increase in sales in FY15. Of this $390.4 million, $183.6 million was attributable to restaurants opened during FY15. Comparable restaurant sales increased 0.2% on the year and declined 14.6% for the fourth quarter of 2015, including a 30% decline in December 2015[17].

When considering fixed costs (the sum of labor, occupancy, other operating costs, and general and administrative expenses), the trend as a percentage of revenue from FY11through FY14 was downwards. The reason behind this is that Chipotle reported positive comparable restaurant sales growth over this period, allowing the company to earn more revenue on the same fixed costs. However, I see fixed costs as a percentage of revenue increase in FY15 due to the food illness incidents. I can expect a significant increase in FY16 given the crises' dampening effects on revenue, as well as the significant uptick in advertising and marketing efforts attempting to regain customers. Shareholders should therefore expect margin contraction in 2016.

P-DCF

The results are contained in the 'P-DCF' worksheet of the accompanying Excel workbook.

Revenue was projected based on the single reportable business segment. It was predicted to contract 15% in FY16 to $3.826B, which is the approximate value obtained when prorating the first three quarters of FY16evenue. It's worth noting that this decline is slightly more pessimistic when compared to street estimates. For example, JP Morgan models a 12.5% decline in FY16 revenue. However, JP Morgan made this assumption before December 6, 2016. On this date, Chipotle co-CEO Steve Ells expressed his concern about the company's ability to meet its guidance for the year[18] at a Barclays retail conference in New York. I feel that this comment supports our decision to contract FY16 revenue slightly more than Street analysts.

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[17] https://www.sec.gov/Archives/edgar/data/1058090/000105809016000058/cmg-20151231x10k.htm
[18] http://www.businessinsider.com/chipotle-says-its-nervous-about-guidance-for-the-year-2016-12

For FY17, revenue is projected at a growth rate of 20%, factoring in any recovery in sales to pre-crisis levels that might occur. For the remainder of the forecast period – FY18 to FY25 – our model assumes a 12% revenue growth rate for each year. These assumptions may seem overly optimistic compared to street estimates of roughly 18% revenue growth for FY17 and then 10% thereafter (FY18 to FY25). However, as mentioned above, these generous revenue projections are chosen intentionally to help convey the degree to which Chipotle stock is overvalued. At these rates, our output implies that the current market price trades at premium of roughly 30%. Put another way, holding all else equal, total revenue would have to grow at a CAGR of 19% from FY18 to FY25 in order to justify the current stock price of $382.48. This scenario is highly unlikely considering the pervasive trends damaging Chipotle's brand and dragging down its top line.

With the exception of two line items, cost margins are held constant at their historical averages. The first divergence is with the food, beverage and packaging expenses line item. It is fairly clear, based on its sequential historical margins on revenue [32.5%, 32.6%, 33.4%, 34.6%, 33.4%] that this item has not illustrated signs of operating leverage. Since Chipotle is likely transitioning into more the mature stage of its life cycle, however, I assume that it will achieve operating leverage through economies of scale in future periods. Thus, I apply a 0.1% step decline, as is common practice, over the ten year forecast period. The potential for expansion to temporarily increase food expenses might bring into question this assumption, but I choose to omit this consideration for the sake of yielding a conservative model output. J apply this same step decline to general and administrative expenses for the similar reason of obtaining a conservative result and due to the fact that this line item has generally declined over the historical period of focus.

With regard to the cash flow drivers, capital expenditures and depreciation and amortization are each equated to three percent of revenue, the idea being that the firm invests an amount that is roughly equivalent to that which it expends. During Chipotle's growth phase, it made sense that capital expenditures outpaced depreciation and amortization. However, moving forward these items should converge to a one-to-one ratio as the company matures. Changes in working capital, along with another immaterial item, are zeroed out in the model due to lack of predictability. Remaining items such as interest and taxes were held at their historical averages.

Model Results

These assumptions lead to free cash flow per share of $264.80 versus the current price of $392.07, implying 33% potential downside. According to the Monte-Carlo results shown in Figure 3 below, the current price falls in the 99th percentile of the simulation. This essentially indicates that there is a 1% probability that Chipotle's long-term free cash flow per share will exceed today's market price (Figure 3).

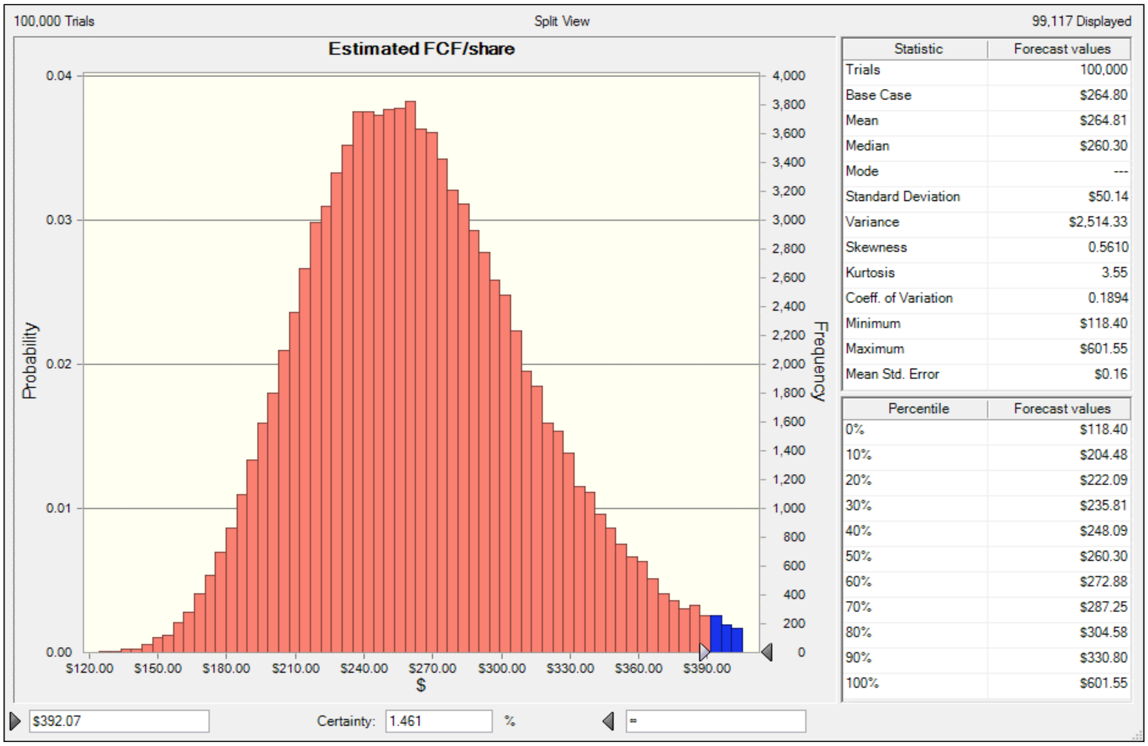


Figure 3: Monte Carlo Simulation Output

Qualitative and Other Analyses

Competitor Analysis

To gain an understanding of Chipotle's competitive positioning among industry peers, I conduct a competitor analysis. This analysis includes three components: valuation multiples, operating metrics, and profitability metrics. These methodologies can pose useful implications when viewed in tandem. Namely, they can point to any instances of variability in the multiples. If Chipotle has the best growth and strongest margins, for example, then high valuation multiples could be justified.

The valuation multiple columns in the Figure 4 exhibit a comparison of Chipotle's price to earnings (P/E) and enterprise value (EV) to earnings before interest, depreciation, and amortization (EBITDA). The P/E ratio essentially reflects the dollar amount a market participant will invest in a company to receive one dollar of that company's earnings. Chipotle's trailing twelve-month P/E ratio is 125.31x, while the peer universe average and median P/E is 31.59x and 29.27x respectively. The EV/EBITDA ratio is another valuation multiple that takes into account a firm's debt, which the P/E ratio does not. By this measure as well, Chipotle's multiples sizably exceed the industry mean and median.

Valuation Multiples and Operating Metrics								
Name	**Mkt Cap**	**P/E**	**EV**	**EV/EBITDA**	**EV/Sales**	**Sales Growth Yoy (%)**	**Y- SSS (%)**	**EBITDA Margin**
POTBELLY CORP	360.21	36.39	7.96	8.46	0.77	14.03	4.40	9.80
PANERA BREAD COMPANY	4882.62	31.43	12.01	12.77	1.77	6.03	1.90	14.84
SHAKE SHACK INC	1388.72	83.24	25.44	33.92	5.14	60.80	13.30	16.41
DOMINO'S PIZZA INC	7781.56	39.55	18.74	20.91	3.85	11.17	N/A	19.94
PAPA JOHN'S INTL INC	3241.11	35.29	17.13	18.38	1.97	2.45	N/A	11.44
STARBUCKS CORP	85490.20	30.44	15.08	16.51	3.77	11.24	5.00	24.67
JACK IN THE BOX INC	3602.41	28.25	12.37	13.68	2.56	3.83	N/A	20.94
WENDY'S CO/THE	3544.42	24.06	14.65	13.99	3.15	-6.42	3.10	25.87
POPEYES	1272.18	29.60	15.22	16.40	4.73	9.93	5.90	32.48
YUM! BRANDS INC	23431.47	17.61	14.42	9.95	3.15	-1.31	N/A	23.22
MCDONALD'S CORP	101853.91	21.66	13.09	13.06	4.79	-7.39	1.50	38.56
SONIC CORP	1265.06	20.75	11.45	10.59	3.08	0.04	2.60	27.90
DUNKIN' BRANDS GROUP INC	4890.37	29.85	14.84	15.96	8.28	8.31	N/A	54.14
DARDEN RESTAURANTS INC	9400.91	20.59	9.77	10.14	1.13	2.51	3.30	13.78
TEXAS ROADHOUSE INC	3442.86	27.88	11.67	12.89	1.46	14.24	7.20	13.54
BUFFALO WILD WINGS INC	3037.93	28.93	9.62	10.20	1.48	19.56	4.20	15.44
Average	**16180.37**	**31.59**	**13.97**	**14.86**	**3.19**	**9.31**	**4.76**	**22.69**
Median	**3573.42**	**29.27**	**13.76**	**13.37**	**3.11**	**7.17**	**4.20**	**20.44**
CHIPOTLE MEXICAN GRILL INC	**10873.59**	**125.31**	**20.48**	**37.88**	**3.08**	**9.56**	**0.20**	**7.18**

Figure 4: Chipotle Competitor Analysis
Source: Bloomberg Terminal. Command <RV>. Accessed 12/15/16

Therefore, we might expect to see that Chipotle has superior operating and profitability metrics, but this is not the case. Chipotle's FY15 revenue growth slightly edges over the industry average and median. Further apparent weakness lies in same-store sales growth and the EBITDA margin.

In summary, it seems that there is a significant discrepancy between Chipotle's staggeringly high valuation and its underwhelming operating and profit performance. While this analysis is not a surefire method to craft an investment thesis, it is a useful ancillary stress test. Investors ought to be wary of overpaying for a company that cannot outperform its competitors throughout the income statement. Chipotle fits this description to a tee.

What Say the Bulls?

I briefly addressed bullish sentiments on Chipotle earlier in this paper when discussing Ackman's thesis. However, to properly identify a short candidate, it is prudent to extensively evaluate the arguments of those most positive on the stock. Ackman, of course, is not the only investor who sees a bright future for the beleaguered restaurant chain. The famous Jim Cramer of CNBC cites the experience of Jack-in-the-Box after its 1993 food borne illness incident as evidence that Chipotle's "ballgame will change[19]." However, there are several reasons why I disagree with this comparison.

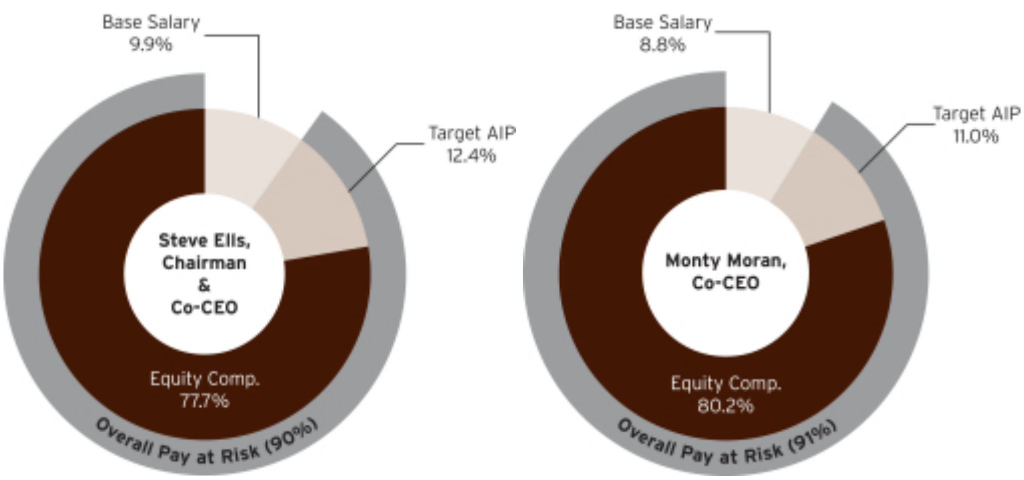
1. The Jack-in-the-Box food borne illness outbreak only had one occurrence, while Chipotle had five consecutive major incidents in less than six months.
2. The Jack-in-the-Box food borne illness outbreak was traced to a single batch of tainted meat that was cooked to the federal-standard temperature. The sources of the Chipotle pathogens have yet to be determined.

[19] http://realmoney.thestreet.com/articles/12/06/2016/cramer-wait-few-months-longer-buy-chipotle

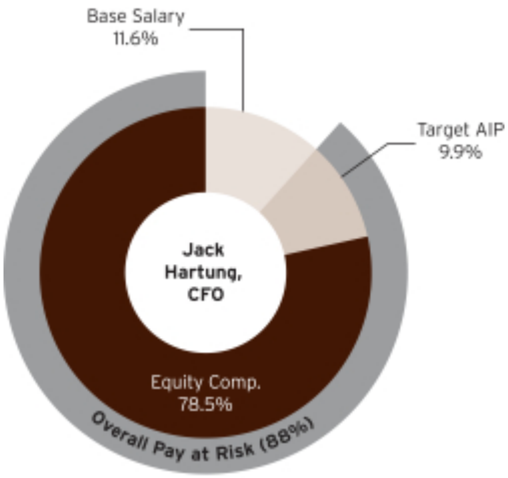
3. Jack-in-the-Box management was extremely upfront about their outbreak, apologizing immediately. Chipotle's team waited months and arrogantly dismissed public concern over the outbreaks as "hype" concocted by the media and by the Center of Disease Control[20].
4. Jack-in-the-Box had a very simple supply chain, but Chipotle's produce items and other ingredients are at much higher risk food borne illness.
5. Lastly, Jack's outbreak occurred in an era when news was still being delivered to Americans mainly through TV and newspapers. Chipotle's incidents have been viral across dozens of news outlets and all over social media.

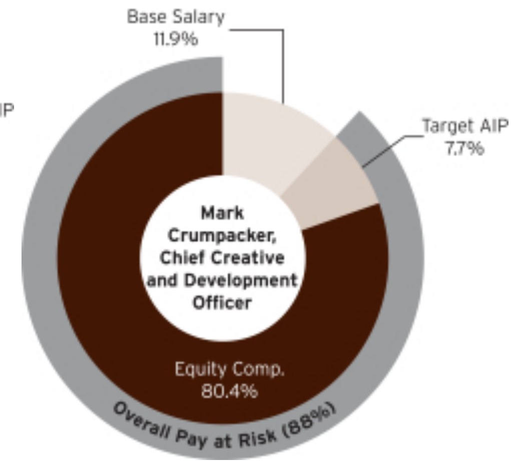
Management Compensation

According to Chipotle's FY15 proxy statement, the company's executives are compensated in three ways: base salaries, annual bonuses, and equity-based compensation[21]. Base salaries are determined each year depending on each executive's contributions, individual performance, and level of experience. Annual bonuses are determined under the company-wide Annual Incentive Plan (AIP). This plan gives variable payouts based on operating and financial performance goals approved by the compensation committee each year, as well as subjective measures of individual performance. Equity compensation is designed to align the incentives of executive officers with shareholder interests and to reward the creation of shareholder value. The following charts, taken from the company's proxy report, illustrate the breakdown of compensation structure for various executive officers.



[20] http://seekingalpha.com/article/3987378-chipotles-third-strike-anecdotal-stories-illnesses-highlight-risk-corporate-shortcomings
[21] https://www.sec.gov/Archives/edgar/data/1058090/000119312516516433/d101839ddef14a.htm





To determine various aspects of its compensation policies, Chipotle uses the following restaurant industry peer group:

COMPANY		2015 ANNUAL REVENUES[(1)(2)]		MARKET CAPITALIZATION[(1)(3)]
Biglari Holdings, Inc.	$	861	$	673
BJ's Restaurants, Inc.	$	920	$	1,096
Bloomin' Brands, Inc.	$	4,378	$	2,024
Bob Evans Farms, Inc.	$	1,336	$	811
Brinker International, Inc.	$	3,100	$	2,856
Buffalo Wild Wings, Inc.	$	1,813	$	3,040
Carrols Restaurant Group, Inc.	$	823	$	411
The Cheesecake Factory Incorporated	$	2,101	$	2,181
Cracker Barrel Old Country Store, Inc.	$	2,861	$	3,036
Darden Restaurants, Inc.	$	6,905	$	8,155
DineEquity Inc.	$	681	$	1,578
Domino's Pizza Inc.	$	811	$	3,945
Dunkin Brands Group, Inc.	$	2,118	$	6,079
Fiesta Restaurant Group, Inc.	$	664	$	893
Ignite Restaurant Group, Inc.	$	830	$	110
Jack In The Box Inc.	$	1,540	$	2,746
McDonald's Corp.	$	25,413	$	108,480
Panera Bread Company	$	2,682	$	5,206
Papa John's International Inc.	$	1,637	$	2,180
Red Robin Gourmet Burgers, Inc.	$	1,258	$	860
Ruby Tuesday, Inc.	$	1,123	$	341
Sonic Corp.	$	612	$	1,594
Starbucks Corporation	$	19,733	$	89,132
Texas Roadhouse Inc.	$	1,807	$	2,509
The Wendy's Company	$	1,956	$	2,945
Yum! Brands, Inc.	$	13,105	$	31,502

Chipotle's compensation committee administers base salaries in the range around the 50th percentile of the market (determined by the above peer group). The committee also takes into account other factors such as individual performance, experience, development, and potential. Therefore, the overall may range from the 25th percentile and below for newer executives to the 90th percentile or higher for "truly exceptional performers in critical roles who consistently exceed expectations." The current base salaries of Chipotle's executives are at the high end of the range. While no discretionary bonuses were paid in 2015, base salaries were increased for all executives.

In general, four measures are used to determine the company and team performance factors. The fiscal 2015 targets for each of the metrics are shown in the table below.

Performance Measure	Target
Operating Income (before AIP and stock compensation expense)	$ 1,067.9 million
New Rest. Avg. Daily Sales	$5,278
Comparable Rest. Sales Increase	7.0%
New Weeks of Operations	5,188

Of the above measures, operating income is weighted most heavily, as the company believes profitability is the most important measure of its financial success and driver of shareholder value. Due to the food-borne illness incidents that negatively affected 2015 results, Chipotle's company performance factor was 0 percent, resulting in no AIP payouts to executives.

For FY15, the compensation committee made long-term incentive awards to each executive officer in the form of new performance share awards. These awards incorporate a three-year performance-contingent vesting period based on Chipotle's relative performance return versus the restaurant industry peer group. The following three measures are weighted equally: averaged revenue growth, net income growth, and total shareholders' return. The following illustrates the specifics of payouts and contingencies.

OFFICER NAME	SHARES EARNED FOR PERFORMANCE BELOW THRESHOLD	THRESHOLD: SHARES EARNED AT 35TH PERCENTILE	TARGET: SHARES EARNED AT 65TH PERCENTILE	MAXIMUM: SHARES EARNED AT 90TH PERCENTILE	% REDUCTION FROM 2014 LTI VALUE
Steve Ells	0	7,444	14,887	29,774	49.2%
Monty Moran	0	7,444	14,887	29,774	49.2%
Jack Hartung	0	3,126	6,252	12,504	37.8%
Mark Crumpacker	0	2,233	4,466	8,932	11.2%

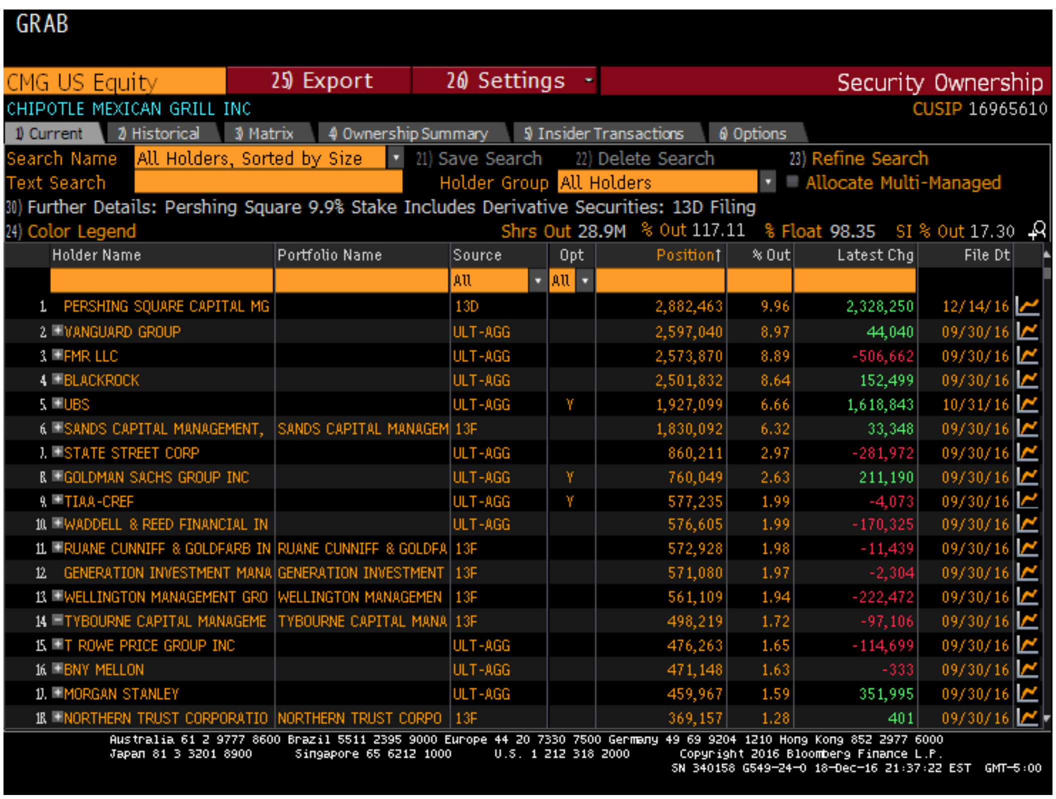
Finally, the summary compensation below effectively communicates the composition of Chipotle's executive compensation.

NAME AND PRINCIPAL POSITION	YEAR	SALARY	STOCK AWARDS (1)	OPTION AWARDS (2)	NON-EQUITY INCENTIVE PLAN COMPENSATION(3)	ALL OTHER COMPENSATION(4)	TOTAL
STEVE ELLS	2015	$1,526,000	$ 12,030,036	—	—	$ 281,858	$13,837,894
Chairman and Co-Chief Executive Officer	2014	$1,400,000	—	$ 23,698,500	$ 3,570,000	$ 255,770	$28,924,270
	2013	$1,400,000	$ 7,961,250	$ 12,304,500	$ 3,196,816	$ 254,305	$25,116,871
MONTY MORAN	2015	$1,308,000	$ 12,030,036	—	—	$ 223,041	$13,561,077
Co-Chief Executive Officer	2014	$1,200,000	—	$ 23,698,500	$ 3,060,000	$ 194,702	$28,153,203
	2013	$1,200,000	$ 7,961,250	$ 12,304,500	$ 2,740,128	$ 191,176	$24,397,054
JACK HARTUNG	2015	$ 745,769	$ 5,052,179	—	—	$ 235,361	$ 6,033,309
Chief Financial Officer	2014	$ 700,000	—	$ 8,125,200	$ 1,213,800	$ 206,842	$10,245,842
	2013	$ 645,719	$ 3,980,625	$ 4,101,500	$ 975,501	$ 179,004	$ 9,882,349
MARK CRUMPACKER	2015	$ 532,077	$ 3,608,930	—	—	$ 141,581	$ 4,282,588
Chief Creative and Development Officer	2014	$ 500,000	—	$ 4,062,600	$ 663,000	$ 109,591	$ 5,335,191
	2013	$ 402,580	$ 3,184,500	$ 1,692,400	$ 506,328	$ 107,054	$ 5,892,862

Overall, the company's management compensation plan is mediocre. The first red flag is the fact that base salaries were increased in 2015. Even though no annual bonuses were paid out last year (and rightfully so), the compensation committee's decision to increase base salaries after the food-borne illness incidents is questionable. One are of strength is the compensation structure.. Roughly 90% of each executive's overall pay is at risk, and within this at-risk section, there is a favorable split between annual bonuses and long-term incentives. Regarding the long-term incentives, however, there are a couple minor blips. First, a three-year period is really not "long-term." Something in the range of five years would be more optimal for aligning interests with shareholders who have a truly long time horizon. Second, one of the measures involved in calculating new performance shares granted is annual revenue growth (over the same three year period). An analysis that also includes a comparison of revenue growth for each of the three years over this period would be valuable as well. Without such a provision, there is more likelihood that egregious years such as FY16 fall between the cracks and do not truly implicate management, as they should.

Share Ownership and Insider Trading

Figure 5 shows a list of Chipotle's largest shareholders. After Pershing Square Capital Management, Bill Ackman's hedge fund, several other big institutional players have invested considerable stakes in Chipotle's equity. These firms include exchange-traded fund managers like BlackRock, Vanguard, State Street, as well as the more traditional mutual fund managers such as Fidelity and Goldman Sachs Asset Management. The screenshot also reveals that Chipotle's short interest is 17.3% of the float, a fairly high value.



GRAB

CMG US Equity | 25) Export | 26) Settings | Security Ownership

CHIPOTLE MEXICAN GRILL INC — CUSIP 16965610

1) Current | 2) Historical | 3) Matrix | 4) Ownership Summary | 5) Insider Transactions | 6) Options

Search Name: All Holders, Sorted by Size | 21) Save Search | 22) Delete Search | 23) Refine Search

Text Search | Holder Group: All Holders | Allocate Multi-Managed

30) Further Details: Pershing Square 9.9% Stake Includes Derivative Securities: 13D Filing

24) Color Legend — Shrs Out 28.9M | % Out 117.11 | % Float 98.35 | SI % Out 17.30

	Holder Name	Portfolio Name	Source	Opt	Position↑	% Out	Latest Chg	File Dt
			All	All				
1.	PERSHING SQUARE CAPITAL MG		13D		2,882,463	9.96	2,328,250	12/14/16
2.	VANGUARD GROUP		ULT-AGG		2,597,040	8.97	44,040	09/30/16
3.	FMR LLC		ULT-AGG		2,573,870	8.89	-506,662	09/30/16
4.	BLACKROCK		ULT-AGG		2,501,832	8.64	152,499	09/30/16
5.	UBS		ULT-AGG	Y	1,927,099	6.66	1,618,843	10/31/16
6.	SANDS CAPITAL MANAGEMENT,	SANDS CAPITAL MANAGEM	13F		1,830,092	6.32	33,348	09/30/16
7.	STATE STREET CORP		ULT-AGG		860,211	2.97	-281,972	09/30/16
8.	GOLDMAN SACHS GROUP INC		ULT-AGG	Y	760,049	2.63	211,190	09/30/16
9.	TIAA-CREF		ULT-AGG	Y	577,235	1.99	-4,073	09/30/16
10.	WADDELL & REED FINANCIAL IN		ULT-AGG		576,605	1.99	-170,325	09/30/16
11.	RUANE CUNNIFF & GOLDFARB IN	RUANE CUNNIFF & GOLDFA	13F		572,928	1.98	-11,439	09/30/16
12.	GENERATION INVESTMENT MANA	GENERATION INVESTMENT	13F		571,080	1.97	-2,304	09/30/16
13.	WELLINGTON MANAGEMENT GRO	WELLINGTON MANAGEMEN	13F		561,109	1.94	-222,472	09/30/16
14.	TYBOURNE CAPITAL MANAGEME	TYBOURNE CAPITAL MANA	13F		498,219	1.72	-97,106	09/30/16
15.	T ROWE PRICE GROUP INC		ULT-AGG		476,263	1.65	-114,699	09/30/16
16.	BNY MELLON		ULT-AGG		471,148	1.63	-333	09/30/16
17.	MORGAN STANLEY		ULT-AGG		459,967	1.59	351,995	09/30/16
18.	NORTHERN TRUST CORPORATIO	NORTHERN TRUST CORPO	13F		369,157	1.28	401	09/30/16

Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2016 Bloomberg Finance L.P.
SN 340158 G549-24-0 18-Dec-16 21:37:22 EST GMT-5:00

Figure 5: All Holders of Chipotle Stock, Sorted by Size
Source: Bloomberg Terminal. Command <HDS>. Accessed 12/19/2016

Figure 6 tracks management's open market buys and sells of the stock over the past calendar year. It highlights one sale transaction executed by co-CEO Steve Ells on May 31, 2016. Actual insider positions can be seen in Figure 7, which sorts them by size. In aggregate, insiders hold 1.65% of outstanding stock. Steve Ells owns .68% of the company's outstanding shares. Clearly, insiders do not own a significant portion of Chipotle's equity. While not necessarily a warning sign itself, low insider ownership should prompt investors to take another look at company executives. It is important to understand the degree to which these individuals are financially incentivized to cultivate positive company performance.

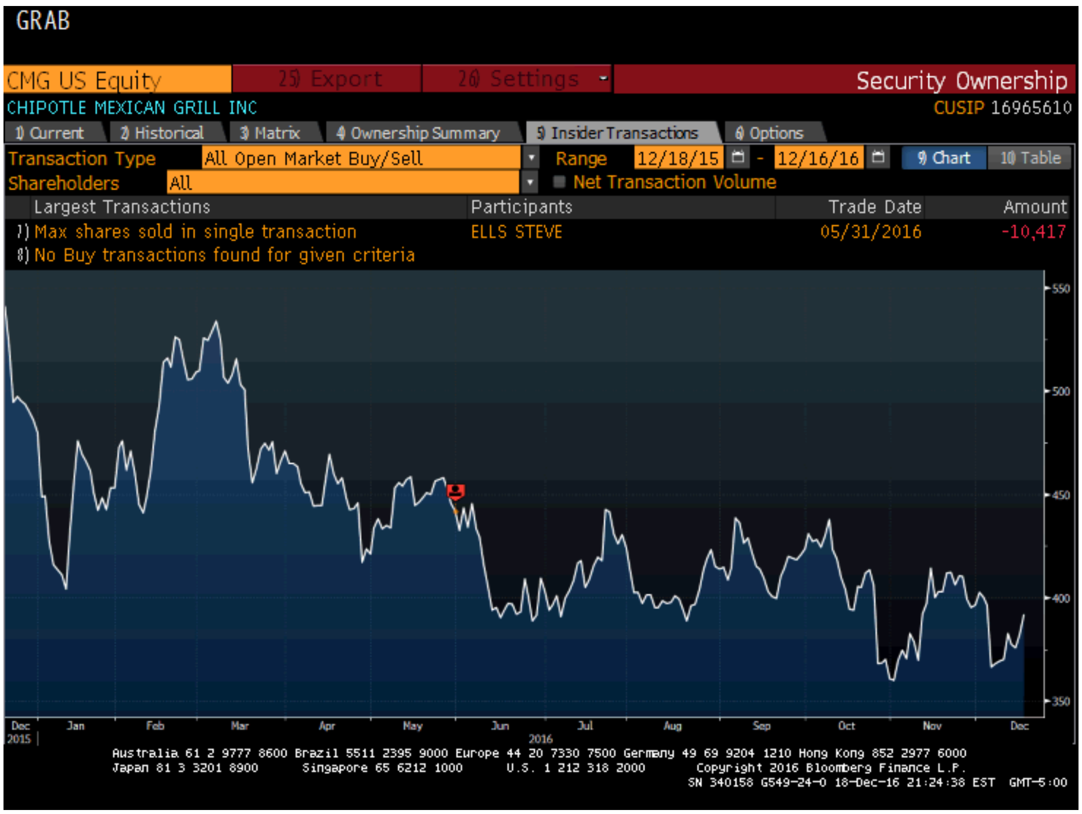
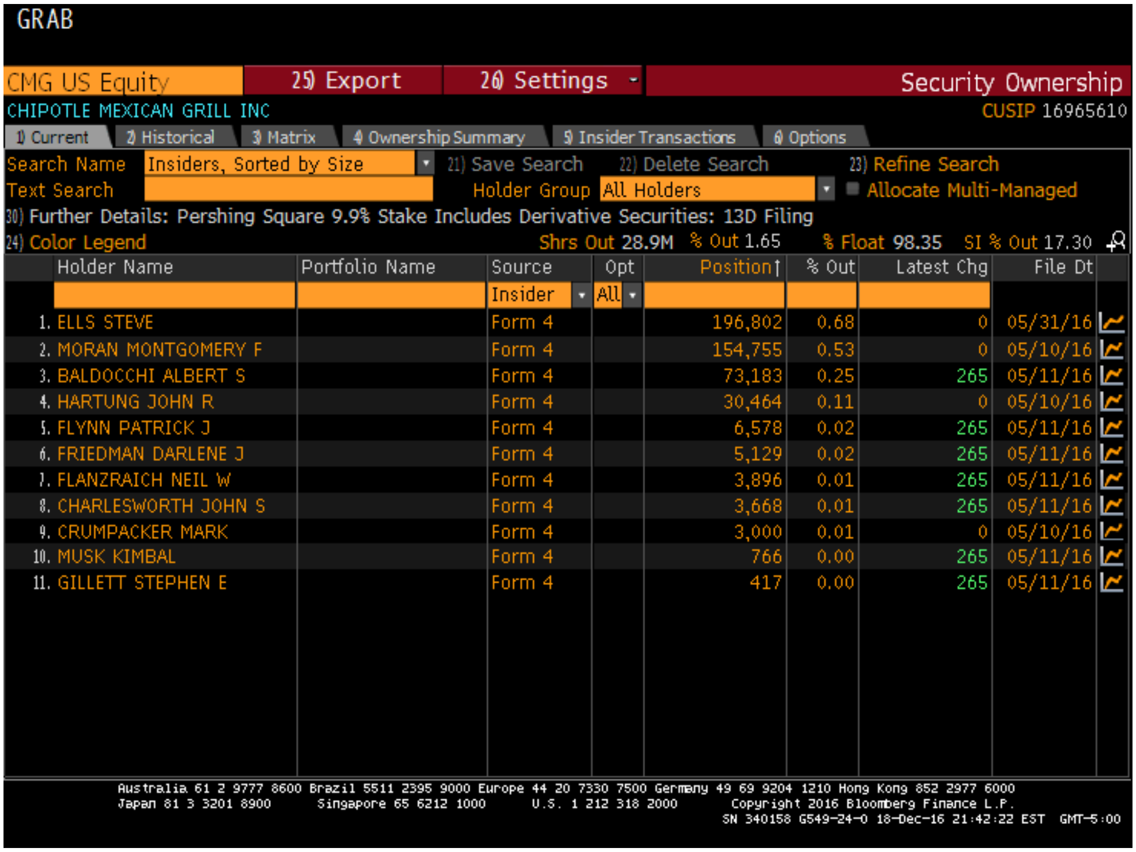


Figure 6: Chipotle Insider Transactions

Source: Bloomberg Terminal. Command <GPTR>. Accessed 12/19/2016



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CMG US Equity | 25) Export | 26) Settings | Security Ownership

CHIPOTLE MEXICAN GRILL INC — CUSIP 16965610

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30) Further Details: Pershing Square 9.9% Stake Includes Derivative Securities: 13D Filing

24) Color Legend | Shrs Out 28.9M | % Out 1.65 | % Float 98.35 | SI % Out 17.30

	Holder Name	Portfolio Name	Source	Opt	Position	% Out	Latest Chg	File Dt
			Insider	All				
1.	ELLS STEVE		Form 4		196,802	0.68	0	05/31/16
2.	MORAN MONTGOMERY F		Form 4		154,755	0.53	0	05/10/16
3.	BALDOCCHI ALBERT S		Form 4		73,183	0.25	265	05/11/16
4.	HARTUNG JOHN R		Form 4		30,464	0.11	0	05/10/16
5.	FLYNN PATRICK J		Form 4		6,578	0.02	265	05/11/16
6.	FRIEDMAN DARLENE J		Form 4		5,129	0.02	265	05/11/16
7.	FLANZRAICH NEIL W		Form 4		3,896	0.01	265	05/11/16
8.	CHARLESWORTH JOHN S		Form 4		3,668	0.01	265	05/11/16
9.	CRUMPACKER MARK		Form 4		3,000	0.01	0	05/10/16
10.	MUSK KIMBAL		Form 4		766	0.00	265	05/11/16
11.	GILLETT STEPHEN E		Form 4		417	0.00	265	05/11/16

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Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2016 Bloomberg Finance L.P.
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Figure 7: Insider Holdings of Chipotle Stock, Sorted by Size
Source: Bloomberg Terminal. Command <HDS>. Accessed 12/19/2016

Conclusion

Based on the disappointing output of the P-DCF, a slew of food-borne illnesses that induced a reversal in popularity, the structure of Chipotle's management compensation, and a rich relative valuation, it appears that there is significant potential downside given the current stock price of $392.07. While management has optimistic views on the company's ability to right its course in the wake of its 2015 public relations nightmare, this remains to be seen. Regarding management, I believe that their allocation of capital with an emphasis on share repurchase programs is ill informed given Chipotle's lofty valuation. Furthermore, I perceive the presence of activist investor William Ackman in the stock as an overall negative, as I do not share his views on the health of the company's brand reputation and the brand reputation. Lastly, I think that a sustained difficult macro backdrop and the potential for consumer spending to weaken in the near-term pose significant risks. Again, all of these factors, when considered in conjunction, point to a **sell**.